

REMARKS

This Application has been reviewed in light of the Office Action dated September 8, 2005. Claims 1-36 are pending with Claims 1, 13 and 22 in independent form. Claims 1-8, 10, 11, and 13-36 have been amended to define the invention more clearly. In particular, the claims, generally, have been amended to specify that the “elements” referred to in the Claims are --image elements--. Claims 3-6, 14, 16, 17, 31, and 32 have been amended to specify the relationship between image elements on a stack of image layers. Claim 13 has been amended to describe more clearly where and in which memory areas data is stored. Claim 22 has been amended to specify that the raster image processing step occurs subsequent to the initializing step. All other amendments to the claims are believed to be formal in nature, and such changes are submitted not to change the scope of the claims. Favorable reconsideration is requested.

The Office Action includes an objection to Claim 1 regarding the phrase “initializing the least one memory.” Applicant has adopted the Examiner’s recommendation of amending such phrase to read --initializing the at least one memory--. Accordingly, withdrawal of the objection to Claim 1 is respectfully requested.

Claim 27 was objected to in the Office Action due to the phrase “adding image masks to recurring element.” Applicant has adopted the Examiner’s recommendation of amending this phrase to read --adding image masks to recurring elements--. Accordingly withdrawal of the objection to Claim 27 is respectfully requested.

Claims 3-6, 16, 17, and 31 were objected to under 35 U.S.C. §112, second paragraph, because the positional references to “below” and/or “above” in these claims were allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards has the invention. Applicant has amended these Claims to specify that the positional relationships of “above” and “below” refer to a positional relationship on a stack of image layers or an image stack. Applicant respectfully submits that such amended claims meet the requirements of Section 112, second paragraph, and requests withdrawal of these rejections.

Claims 1-36 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 6,049,390 (Notredame et al.).

Applicant respectfully traverses this rejection and submits that independent Claims 1, 13, and 22 are patentably distinct from the Notredame et al. patent for at least the following reasons.

Claim 1 requires a method for one pass assembly in raster image processing of image elements using memory. The method includes forming a plurality of lists from image elements within a job file, the plurality of lists including at least a first list for recurring image elements and at least a second list for variable image elements. The method also includes storing the recurring image elements of the first list in rasterized form and storing the variable image elements of the second list in non-rasterized form. Further, the method includes identifying placement within at least one memory area of the recurring image elements and the variable image elements, and initializing the at least one memory area with stored recurring image elements from the first list. Additionally, the method includes raster image processing (RIPping) the at least one memory area with stored variable image elements from the second list.

Notable features of Claim 1 include storing the recurring image elements of a first list in rasterized form; storing variable image elements of a second list in non-rasterized form; initializing at least one memory area with stored recurring image elements of the first list; and raster image processing the at least one memory area with stored variable image elements from the second list. Support for these features can be found in the specification at least at page 5, lines 22-26, and page 6, lines 3-18. Claim 1 reflects that recurring image elements are prerasterized and need not be rasterized multiple times, and variable image elements are RIPped on the fly.

In contrast to Claim 1, the Notredame et al. patent makes no distinction between variable image elements and recurring image elements. See column 10, lines 8-10. Further the Notredame et al. patent is not understood to teach or suggest rasterizing recurring image elements at a time different from variable image elements, as required by Claim 1.¹ Contrary to Claim 1, the Notredame et al. patent is understood to teach RIPping only at one time, shown at element 1009 in FIG. 10 of the Notredame et al. patent. To elaborate, the

¹ Claim 1 requires that recurring image elements be stored in rasterized form and that variable image elements be stored in non-rasterized form. Thereafter, at least

Notredame et al. patent is understood to teach a process of RIPping all data and then compressing such data. See column 10 line 59 to column 11 line 6. See also, column 5 lines 38-45. After the rasterized data is RIPped and then compressed, the Notredame et al. patent is understood to teach merging the compressed, RIPped data using a page layout script and then decompressing such data into its previously rasterized form. See column 5 lines 46-65. See also column 18 line 23 to column 19 line 20. Accordingly, Applicant respectfully submits that the Notredame et al. patent does not teach or suggest at least the features of Claim 1 of storing the recurring image elements of a first list in rasterized form; storing variable image elements of a second list in non-rasterized form; initializing at least one memory area with stored recurring image elements of the first list; and raster image processing the at least one memory area with stored variable image elements from the second list.

The Office Action refers to the Read Queue 1203 of FIG. 12 of the Notredame et al. patent as allegedly teaching a type of storage for non-rasterized variable elements. See paragraph 7, page 3 of the Office Action. However, Applicant understands the Read Queue 1203 to refer to a list of pointers to pages. See column 21, line 67 to column 22, line 2. Applicant respectfully submits that a list of pointers is not a storage of variable image elements in non-rasterized form as required by Claim 1. Further, such pointers are not understood to be taught or suggested by the Notredame et al. to be subsequently rasterized in at least one memory area, as required by Claim 1.

The Office Action also refers to column 5, beginning at line 61 as allegedly teaching raster image processing a memory area with elements of the second list. See paragraph 7 of the Office Action, pages 3-4. This portion of the Notredame et al. patent states, in part, that “the compressed image data generated by merging is decompressed into raster image data” Applicant respectfully submits that the process of decompression referred to by the Notredame et al. patent is not raster image processing. Applicant understands the Notredame et al. patent to describe RIPping followed by compression of the RIPped data, which is then decompressed into its previously RIPped form. See column 5, lines 38-65. In other words, the decompression, according to the Notredame et al. patent is

one memory area is raster image processed with the stored variable image elements.

understood to decompress already RIPped data. No RIPping, subsequent to the original RIPping performed by the RIP system 1009, is understood to be performed. See FIG. 10 elements 1009, 1011, 1013, 1015, and 1017. See also column 19, lines 9-41 which describe the decompression and Screening System 1017.

For at least the above-discussed reasons, Applicant respectfully submits that Claim 1 is patentable over the Notredame et al. patent, and withdrawal of the Section 102(b) rejection is respectfully requested.

Independent Claim 13 includes similar features to that described above in connection with Claim 1. In particular, Claim 13 requires storage of recurring image elements in rasterized form in a first memory area and storage of variable image elements in non-rasterized form in a second memory area. The variable image elements are subsequently rasterized in a third memory area. Accordingly, Claim 13 is believed to be patentable over the Notredame et al. patent for at least the same reasons as discussed above in connection with Claim 1. Withdrawal of the Section 102(b) rejection of Claim 13 is respectfully requested.

Independent Claim 22 requires placement of recurring image elements and variable image elements in at least one memory area; initializing the memory area with the recurring image elements and the variable image elements; and thereafter raster image processing the memory area. In other words, Claim 22 requires placement of recurring image elements and variable image elements in at least one memory area and then thereafter raster image processing the memory area. In contrast, to the Notredame et al. patent is understood to RIP all data first with the RIP System 1009 and then place the RIPped data in a Page Element Store 1013. All the individual data elements in the Page Element Store 1013 are then arranged and merged into a page layout by Merge System 1015 and then decompressed prior to printing. Accordingly, the Notredame et al. patent is understood to teach RIPping and then element placement, whereas Claim 22 requires placement of image elements followed by RIPping such image elements. Accordingly Claim 22 is respectfully submitted to be patentable over the Notredame et al. patent. Withdrawal of the Section 102(b) rejection of Claim 22 is respectfully requested.

The remaining claims are dependent from one of the independent claims discussed above and, therefore are believed to be patentable for at least the

same reasons. However, since each dependent claim is deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

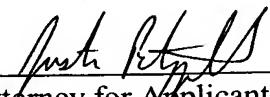
For example, Claim 2 requires placing *additional* recurring image elements in the at least one memory area after the step for raster image processing. Accordingly, Claim 2 requires pre-rasterization of recurring elements, subsequent rasterization of variable elements, and then a placing of additional recurring image elements in the rasterized at least one memory area. This combination of features is not believed to be taught or suggested by the Notredame et al. patent.

For another example, Claims 3-6, 14, 16, and 17 all describe an arrangement of image elements based upon a stack of image layers. The Notredame et al. patent is not understood to teach or suggest these features. For yet another example, Claim 18 requires that a third memory area comprise a plurality of memory bands. An advantage of running RIPping in a banded mode is that it requires much less memory than a commonly-used full frame buffer. See page 4, lines 14-19 of the specification. The Notredame et al. patent is not understood to teach or suggest the features of Claim 18.

For at least the above-discussed reasons, withdrawal of the Section 102(b) rejections of the dependent claims is respectfully requested.

In view of the foregoing amendments and remarks Applicant respectfully requests favorable reconsideration and the allowance of the present application.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.